AMENDMENTS TO THE CLAIMS

1. (Original) A method for locating signal path-rays in a communications system, comprising the steps of:

receiving a signal;

decimating said signal to produce a decimated signal;

processing said decimated signal to produce at least one first location; and

processing said signal and a generated code using said at least one first location to produce at least one second location.

2. (Original) The method according to Claim 1, wherein:

said step of processing said decimated signal to produce at least one first location comprises the step of processing said decimated signal to produce said at least one first location having a first precision;

said step of processing said signal and a generated code using said at least one first location to produce at least one second location comprises the step of processing said signal and said generated code using said at least one first location having said first precision to produce said at least one second location having a second precision; and

said first precision being less precise than said second precision.

3. (Original) The method according to Claim 1, further comprising the step of:

sampling said signal in an analog-to-digital conversion a plurality of times per chip prior to said step of decimating; and

wherein said signal in said step of decimating comprises the sampled signal.

4. (Original) The method according to Claim 1, wherein said communications system comprises a wireless Code Division Multiple Access (CDMA) communications system.

5. (Original) The method according to Claim 1, wherein said step of processing said decimated signal to produce at least one first location comprises the step of applying said decimated signal to at least one filter to produce said at least one first location.

6. (Original) The method according to Claim 5, wherein said step of applying said decimated signal to at least one filter to produce said at least one first location comprises the step of applying said decimated signal to at least one finite impulse response (FIR) filter of at least one matched filter.

7. (Original) The method according to Claim 5, wherein said step of processing said decimated signal to produce at least one first location further comprises the step of applying an output of said at least one filter to a peak detector to determine said at least one first location.

8. (Original) The method according to Claim 1, wherein said step of processing said signal and a generated code using said at least one first location to produce at least one second location comprises the step of shifting one of said signal and said generated code responsive to said at least one first location to create a shifted variable and a non-shifted variable.

9. (Original) The method according to Claim 8, wherein said step of processing said signal and a generated code using said at least one first location to produce at least one second location further comprises the step of correlating said shifted variable with said non-shifted variable to produce a plurality of correlation values.

10. (Original) The method according to Claim 9, wherein said step of processing said signal and a generated code using said at least one first location to produce at least one second location further comprises the step of comparing said plurality of correlation values to select said at least one second location.

11. (Original) The method according to Claim 9, wherein said shifted variable comprises said signal and said non-shifted variable comprises said generated code.

12. (Original) The method according to Claim 9, wherein said shifted variable comprises said generated code and said non-shifted variable comprises said signal.

13. (Original) The method according to Claim 1, further comprising the step of forwarding said at least one second location to rake fingers to enable subsequent maximal ratio combining (MRC) of said signal.

14. (Currently Amended) A receiver system for locating signal path-rays in a communications system, comprising:

a decimation part that decimates a signal in accordance with a decimation factor;

at least one filter connected to said decimation part, said at least one filter involved in determining a first location of said signal;

a code generator part, said code generator part adapted to generate at least one code pattern, wherein a version of said at least one code pattern is an un-shifted version of said at least one code pattern;

at least one shifter connected to said at least one filter to receive said first location, said at least one shifter for shifting said signal to produce a shifted version of said signal; and

at least one correlator, said at least one correlator correlating ~~a~~ the shifted version of said signal to ~~a~~ the un-shifted version of said at least one code pattern.

15-16. (Canceled)

17. (Original) The receiver system according to Claim 14, further comprising an analog-to-digital converter, said analog-to-digital converter converting said signal to a digital sampled signal prior to said decimation part decimating said signal.

18. (Original) The receiver system according to Claim 17, wherein a sampling rate of said analog-to-digital converter is such that an analog version of said signal is sampled a plurality of times per chip.

19. (Original) The receiver system according to Claim 18, wherein said sampling rate and said decimation factor are determinative, at least in part, of a precision of said first location.

20. (Original) The receiver system according to Claim 14, further comprising a peak detector; and

wherein said at least one filter comprises a plurality of matched filters, said plurality of matched filters include at least one finite impulse response (FIR) filter, an input of said peak detector is comprised of an output of said at least one FIR filter, and said first location is comprised of an output of said peak detector.

21. (Original) The receiver system according to Claim 14, wherein said at least one correlator comprises a plurality of correlators, each of said plurality of correlators including a multiplying mixer and an integrator.

22. (Original) The receiver system according to Claim 14, further comprising a comparison part; and

wherein said at least one correlator comprises a plurality of correlators, each of said plurality of correlators outputs a correlation value, said comparison part selects the highest value from among the output correlation values, and a second location output from said comparison part is comprised of said highest value or a related value.

23. (Original) The receiver system according to Claim 22, wherein a first precision of said first location is less exact than a second precision of said second location.

24. (Original) The receiver system according to Claim 14, wherein said communications system comprises a wireless Code Division Multiple Access (CDMA) communications system.

25. (Original) The receiver system according to Claim 14, further comprising a comparison part and a plurality of rake fingers, said comparison part receiving at least one output from said at least one correlator and providing a second location to at least one of said plurality of rake fingers.

26. (Canceled)

27. (Currently Amended) The method according to Claim ~~26~~ 1, wherein ~~said step of determining a coarse location of~~ said signal in said step of decimating comprises ~~the step of decimating said signal, said signal having been~~ oversampled signal.

28. (Currently Amended) The method according to Claim ~~26~~ 1, wherein said step of ~~determining a fine location of said signal based, at least in part, on said coarse location~~ processing said signal comprises the steps of:

generating a code ~~pattern~~;

shifting ~~responsive to~~ based on said ~~coarse~~ first location;

correlating said generated code ~~pattern~~ to said signal, at least one of said generated code ~~pattern~~ and said signal having been shifted in said step of shifting; and

selecting said ~~fine~~ second location in response to said step of correlating.